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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,688	06/06/2005	Michael Baldischweiler	WACHP002	4067

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MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER	
YAARY, MICHAEL D	

ART UNIT	PAPER NUMBER
2193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,688	BALDISCHWEILER ET AL.	
	Examiner	Art Unit	
	MICHAEL YAARY	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 11-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 11-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-3 and 11-27 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/20/2009 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 11-17, and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siska (US Pat. 6,263,429) in view of Benitez (US Pat. 5,815,721).

Siska was cited in the previous office action dated 03/16/2009.

5. **As to claims 1 and 17,** Siska discloses a method for optimizing (Col 8:1-5, "…the greatest compression…") compiler-generated program code intended for a portable data carrier(Col 3:10-25, "…processor chip…",Col 7:18-30, "…a plurality of interconnects to other components within a device/system…") having a processor core(Col 7:19-30, "…contains an embedded processor…") and a first (Col 7:23-30, "…non-cache memory…")and second memory area, (Col 7:23-35, "…cache memory 206…") comprising: the first memory area being provided to receive the optimized program code,(Col 7:29-40, "…The non-cache memory…for at least one program which can be further subdivided into individual lines of code…") the second memory area being provided to receive a predefined library having a multiplicity of library code fragments,(Col 7:25-40, "…The cache memory preferably includes a Micro Code Area…") and the compiler-generated program code being searched for program code fragments that perform the same function as a respective one of the library code fragments (via searching for identical code fragments that match wherein one is stored in the library thereby code fragments perform the same function as library code fragments), (Col 7:42-58, "…searching a program for identical sequences of lines of code …",Col 8:47-63, "…the program may be searched to identify sequences of lines of code…") the program code fragments found thereby being replaced by respectively one call of the corresponding library code fragment. (Col 8:1-20, "…by a microcall results in the greatest compression…", Col 8:24-35, "…each sequence of lines of code in the

collection is replaced in the program by a microcall..." ,Col 9:60-67, "…each microcall preferably contains an identification of the previously identified microroutine…").

6. Siska does not disclose wherein the contents of the predefined library have been determined independently from the compiler-generated program code that is to be optimized. However, Benitez discloses the contents of the predefined library have been determined independently from the compiler-generated program code that is to be optimized (Abstract and column 2, lines 21-33 disclose a system and method for optimizing compilers in which a library containing optimized code sequences is used for comparing with the abstract representations for optimization.).

7. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Siska with the predefined library, as taught by Benitez, for the benefit of recognizing code constructs and optimizing complex structures (Benitez, column 2, lines 11-15).

8. **As to claim 24,** the claim is rejected for similar reasons as claims 1 and 17 above.

9. **As to claims 2, 19, and 25,** the combination of Siska and Benitez disclose that a program code fragment is replaced by a library code fragment only if both code

fragments are identical in their form as executable machine code. (Siska, Col 7:40-55, "searching a program for identical sequences of lines of code...").

10. **As to claim 3,** the combination of Siska and Benitez disclose at least some library code fragments are parameterized (Siska, Col 7:40-55).

11. **As to claims 11 and 20,** the combination of Siska and Benitez disclose that a program code fragment to be replaced is replaced, at least if the program code fragment does not interfere with the program flow, by a subroutine call instruction to the corresponding library code fragment. (Siska, Col 8:1-15, "…by a microcall results in the greatest compression…each sequence of lines of code in the collection is replaced in the program by a microcall to the saved information…").

12. **As to claims 12 and 21,** the combination of Siska and Benitez disclose that the compiler-generated program code exists in the form of assembler source code, and the optimization procedure is performed on a source code level. (Siska, Col 5:33-45, "…utilized on individual code modules, linked executables, non-embedded processor programs...").

13. **As to claims 13, 22, and 26,** the combination of Siska and Benitez disclose that the predefined library is matched to at least one of the following: the hardware of the portable data carrier, an operating system of the portable data carrier,(Siska, Col 8:35-

50, "…Another criterion for ending the compression processing…") and a compiler used in the generation of the compiler-generated program code. (Siska, Col 5:35-50, "…utilized on individual code modules, linked executables…").

14. **As to claim 14,** the combination of Siska and Benitez disclose that the first memory area is electrically programmable. (Siska, Col 13:20-35, "…is compressed and then accessed via RAM,…").

15. **As to claim 15,** the combination of Siska and Benitez disclose that the second memory area is mask-programmable. (Siska, Col 13:10-20, "…is stored in ROM…").

16. **As to claim 16,** the combination of Siska and Benitez disclose the first memory area occupies more chip area per memory cell in the portable data carrier than is occupied by the second memory area. (Siska, Col 13:10-30, '…in an uncompressed format, in an area of ROM identified…").

17. **As to claims 23 and 27,** the combination of Siska and Benitez disclose the first memory area is electrically programmable, (Siska, Col 13:20-35, "…is compressed and then accessed via RAM,…") and the second memory area is mask-programmable, (Siska, Col 13:10-20, "…is stored in ROM…") and the first memory area occupies more chip area per memory cell in the portable data carrier than is occupied by the second memory area. (Siska, Col 13:10-30, '…in an uncompressed format, in an area of ROM

identified…").

18. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siska and Benitez in view of Wilkinson (US Pub. 2008/0115117).

Wilkinson was cited in the previous office action dated 03/16/2009.

19. **With respect to claim 18,** the rejection of claim 17 is incorporated and further, Siska and Benitez do not disclose that the program instructions additionally implement a compiler for converting a high-level language source code into the compiler-generated program code.

20. Wilkinson discloses that the program instructions additionally implement a compiler for converting a high-level language source code into the compiler-generated program code(Col 28:claim 28:stepa), "...a compiler for compiling application source programs written in high level language source code...") in an analogous system for the purpose of translating high-level source code into assembly level or machine level source code.

21. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a compiler that translates high-Level source code

into compiler-generated program code. The modification would have been obvious because one of ordinary skill in the art would have been motivated to translate high-level source code into assembly level or machine level source code.

Response to Arguments

22. Applicant's arguments with respect to claims 1-3 and 11-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL YAARY whose telephone number is (571)270-1249. The examiner can normally be reached on Mon-Fri 9 a.m.-5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Y./
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193